

<p>7</p> <p>Photometric method for determining columbium in steel. A. L. Davydov, Z. M. Vatsberg, and L. E. Burlser. <i>Zarodskaya Lab. 13, 1038-43(1947)</i>.—The blue complex of Co with phosphomolybdate is most intense when the soln. is 0.4-0.7 N in H_2SO_4; the color is independent of the excess of $SnCl_2$ used; phosphate above 0.05 mg. does not affect the color intensity (below that, the color is weaker). The following procedure is recommended. Digest 0.1 g. of steel with 5 ml. of 8 N H_2SO_4 soln. and heat until dissolved. Add 0.2 ml. of concn. HNO_3 and 5 ml. of 2% H_2P. Boil 10 min., dil. with 10 ml. of 8 N H_2SO_4, and add 25 ml. H_2O. Make up to 50 ml. and transfer a 5-ml. aliquot to a 50-ml. volumetric flask, mix with 2 ml. NaH_2PO_4 soln. (0.6 g. per liter), 14 ml. water, and 4 ml. 2% $(NH_4)_2MoO_4$ soln. Heat to 30° and after 15 min. add 20 ml. of 6 N H_2SO_4 (to prevent reduction of molybdate). Wait 30 sec. and add 4 ml. 0.5% $SnCl_2$ soln. Dil. to 50 ml. and measure the color in a photometer against the standard. Mn, Cr, Ni, Si, and C do not affect the result which will agree within 0.01-0.02% of the truth.</p> <p>G. M. Kozlovskoff</p>																									
<p>ADD-31-A METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM EXHIBITIVE</p> <p>SEARCHED BY</p> <p>INDEXED BY</p> <p>FILED BY</p> <p>RECEIVED BY</p> <p>DATE</p> <p>TIME</p> <p>BY</p> <p>REMARKS</p>																									

VAYSBERG, Z. M.

IA 5/49 T9

USSR/Chemistry - Tungstates, Reduction of Jun 48
Chemistry - Molybdates, Reduction of

"New Data on the Structure of Molybdenum and Tungsten Blue Derivatives," Z. M. Vaysberg, B. Ya. Dain, Inst of Phys Chem imeni L. V. Pisarzhevskiy, Acad Sci Ukrainian SSR, 5 3/4 pp

"Zhur Obshch Khim" Vol XVIII(LXX), No 6

Prepares and investigates absorption spectra of molybdate and tungstate reduction products in presence of phosphorus, silicon, boron and arsenic salts. Compounds have various spectra and can be regarded as derivatives of molybdenum and tungsten blue. Submitted 28 Jan 1947.

9/49T)

AYSBERG, Z.M.; DAIN, B.Ya.

Chemical nature of the derivatives of molybdenum and tungsten blues.
Dop. AN URSSR no.5:33-38 '49. (MIRA 9:9)

1. Institut fizichnoi khimii imeni L.V. Pisarsheva'kogo AN URSSR Viddil
fotokhimii. Predstaviv diysniy ohlen AN URSSR O. I. Broda'kiy.
(Pigments)

VAYSBERG, Z. M.

U.S.S.R.

✓ The chemical nature and structure of the derivatives of molybdenum and tungsten blues. Z. M. Vaisberg and B. Ya. Dahn. *Izvest. Sektora Platinny i Drug. Blagorod. Metal. Akad. Nauk S.S.S.R., Inst. Obshchei i Neorg. Khim.* No. 26, 154-62 (1951).—By aid of a medium-sized Hilger spectrograph the ultraviolet absorption curves of phosphotungstic, silicomolybdic, arsenomolybdic, phosphotungstic, molybdic, phosphomolybdovanadic (I) acids, and the reduction products thereof, i.e. the various Mo and W blues, were plotted (200-450 mμ), also the compds. were analyzed. The various blues showed only a slight increase in the percentage of the constituents; e.g.: I before and after reduction, resp., contained Mo 50.2 and 50.8, P 1.50 and 1.55, V 2.35 and 2.46%. As the spectral curves are very similar to one another (the absorptions almost always obey Lambert-Beer's law), it is concluded that the original compds. and the blues produced therefrom have very similar structures. Therefore it is proposed to call the blues "heteropoly acids of the reduced series." W. J.

[Handwritten signature]

VAYSBERG, L.M.

... Spectra and their photochem. properties ...
 dyes and their photochem. properties ...
 black and its lac ...
 L. M. Vaysberg, *Chem. Abstr.* 1954, No. 10388 - Absorption spectra
 and photochem. properties of the dye and of its Cr, Cu, Fe,
 and Co salts were studied. For each atom of Cr or Co
 there were 2 mols. of the dye, and for each atom of Cu
 there were 3 mols. of the dye. The absorption spectra of
 the dye and of the salts were similar, but the max. in the
 spectra of the salts were displaced by 10-20 mμ toward the
 long-wave end. The absorption coeffs. of the salts were
 appreciably higher throughout the entire spectrum. Quanta
 yield of photodecompn. at λ 340 mμ were 4×10^{-4} for the
 dye, 2×10^{-4} for the Fe salt, 3×10^{-4} for Co salt, 6×10^{-4}
 for Cr salt, and 5×10^{-4} for Cu salt. M. Horch

Inst. Phys. Chem. USSR

VAYSBERG, K.M.; ZIZIN, V.G.; Primalni uchastiye: TRAVKINA, V.M.; SAFINA,
R.M.

Spectrographic determination of vanadium and nickel in petroleum
products. Zav.lab 26 no.10:1123-1124 '60. (MIRA 13:10)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pereabotke
nefti.

(Vanadium--Spectra)

(Nickel--Spectra)

(Petroleum products)

1. VAYSBERGER, A.
2. USSR (600)
4. Science
7. Physical methods in organic chemistry, Pod red. A. Vaysberger, Perev.
s angl. Izd-vo inostr. lit-ry, Moskva, Vol. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

KUSTOV, R. J. and VAYSBERGER, O. N.

"Problems of Economical Utilization of Coke Gas in the Soviet Union," (Hutnicke
Listy, 1951, Vol. 6, Jan., pp 42-43. In Czech.

VAYSBEYN, M., inzh.

Mechanical ventilation of grain in elevator silos. Muk.-elev.
prom. 25 no, 8:20 Ag '59. (MIRA 13:1)

1. Sverdlovskaya mel'nitsa No. 1.
(Ventilation) (Grain--Storage)

VAYSBEIN, S. A., jt. au.

TYSHKOVSKII, IA. D.

Supphuric acid. Moskva, Gosknimtekhnizdat, 1934. 99 p. (49-44832)

TP215.T9

1. Supphuric acid. I. Vaisbein, S. A., jt. au.

VAYSBETN, S. A.

The chemical industry to the 17th Congress of the All-Union Communist Party
Bolshevik Moskva, Gos, khim.-tekh. izd-vo, 1934. 106 p.

Cyr.4 HD307

VAYSHEYN S.A.

KALMYKOV, N.N.; VAYSHEYN, S.A.; BAYTIN, I.A., redaktor; SHPAK, Ye.G., tekhnicheskiiy redaktor

[Economics of the socialist chemical industry] Ekonomika sotsialisticheskoi khimicheskoi promyshlennosti. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1955. 302 p.
(Chemical industries) (MLRA 9:1)

VAYSBEYN, S.G.

VASILENKO, V.Kh., professor (Moscow)

"Diagnosis and therapy of emergency conditions in the clinical treatment of internal diseases." S.G. Vaisbein. Reviewed by V. Kh. Vasilenko. Klin.med. 33 no.5:91-94 My '55. (MLRA 8:9)
(VAISBEIN, V.Kh) (DIAGNOSIS) (MEDICINE)

VAYSBEYN, S.G.

[Emergency cases in the clinical treatment of internal diseases;
diagnostics and therapy] Neotlozhnye sostoiانيا v klinike vnutren-
nikh boleznei; diagnostika i terapiia. Izd. 2-o, perer. i dop.
Moskva, Medgiz, 1957. 402 p. (MIRA 10:11)
(MEDICINE, INTERNAL)

VAYSBEYN, Sof'ya Grigor'yevna; BOGOSLOVSKIY, V.A., red.; SENCHILO,
K.K., tekhn. red.

[Emergency states in the clinical treatment of internal
diseases] Neotlozhnye sostoiania v klinike vnutrennikh bo-
leznei; diagnostika i terapiia. Izd.3., perer.i dop. Mo-
skva, Medgiz, 1962. 376 p. (MIRA 15:9)
(MEDICINE, INTERNAL) (MEDICAL EMERGENCIES)

VAYSBEYN, S.G. (Moskva)

Hemorrhages in diseases of the internal organs. Med. sestra 20
no.4:14-18 Ap '61. (MIRA 14:5)

(HEMORRHAGES)

(VISCERA—DISEASES)

VAYSBLAT, A.S.; DZHUMAMBAYEVA, A.A.; LIVANSKAYA, N.N.

Treatment of trachoma in Tajikistan with the new preparation
diblomycin. Antibiotiki 7 no.9:829-832 S '62. (MIRA 15:12)

1. Kafedra mikrobiologii (zav. - chlen-korrespondent AMN SSSR
Z.V.Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya
vrachey i Respublikanskiy trakhonatoznyy dispanser Ministerstva
zdravookhraneniya Tadzhikskoy SSR.

(TAJIKISTAN—CONJUNCTIVITIS; GRANULAR) (AUREOMYCIN)

KASYMOV, U.; VAYSBLAT, A.S., vrach; ZEL'TSER, N.Ya., vrach

Control of trachoma in Kolkhozabad District. Zdrav. Tadzh. 7
no. 3:17-19 My-Je '60. (MIRA 14:4)

1. Predsedatel' Kolkhozabadского rayonnogo ispolnitel'nogo komiteta
(for Kasymov).
(KOLKHOZABAD DISTRICT--CONJUNCTIVITIS, GRANULAR)

VAYSBIAT, A.S.

Effect of a 1% emulsion of synthomycin on the conjunctival flora.
in trachoma. Zdrav. Tadzh. 3 no.1:19-21 Ja-F '56. (MIRA 12:7)

1. Iz Respublikanskogo trakhonatoznogo dispansera.
(CONJUNCTIVITIS, GRANULAR)
(CHLOROMYCETIN)

2329 Vaysblat, S. N.

Provodnikovoye Obezboli-Vanive V Khirurgii Zubov I Chelyustey. B-E Pererabot
I Dop. IZD., Kiev, Gosmedizdat USSR, 1954. 290 s. s Ill.; 2L. Ill. 23sm.
8.000 EKZ. 10r 60k. V Per.- Bibliogr: s. 274-86-
(54-56513)

VAYSBLAST, S.N., professor, zasluzhennyi deyatel' nauki; NOVIK, I.O.,
dozent (Kyiv)

Development and present state of stomatology in Ukraine. Stomato-
logiia no.4:3-8 J1-Ag '54. (MLRA 7:9)
(DENTISTRY,
in Russia)

VAYSBLAT, A.S.

Affecting the process of color sensation by hypnotism. Trudy AN Tadjh.
SSR. 40:159-162 '55. (MIRA 9:10)

1. Iz Respublikanskogo trakhomatoznogo dispansera Tadjhikskoy SSR.
(HYPNOTISM) (COLOR SENSE)

VAYSBLAT, A.S.

Eliminating the pain syndrome in iridocyclitis and glaucoma by hypnotic suggestion. Trudy AN Tadzh. SSR 40:169-171 '55. (MIRA 9:10)

1. Iz Respublikanskogo trakhomatoznogo dispansera Tadzhikskoy SSR.
(GLAUCOMA) (HYE--DISEASES AND DEFECTS) (HYPNOTISM)

USSR/Pharmacology. Toxicology. Antibiotics.

V

Abs Jour: Ref. Zhur. - Biol., No 22, 1958, 103002

Author : Vaysblat, A. S.

Inst : -

Title : The Application of a New Antibiotic-Terramycin
For Treatment of Trachoma.

Orig Pub: Zdravookhr. Tadzhikistana, 1958, No. 2, 37-39

Abstract: No abstract

Card 1/1

40

VAYSBLAT, I.N., assistant (Kiyev)

Diagnosis of cysts of the mandible. Probl. chel.-lits. Khir.
no.1:187-194 '65. (MIRA 18:10)

SOLNTSEV, A.M.; VAYSBLAT, I.N.

Medical procedure in the case of unintentional opening of the antrum.
Probl. stom. 5:260-267 '60. (MIRA 15:2)

1. Kiyevskiy meditsinskiy institut usovershenstvovaniya vrachey.
(ANTRUM SURGERY)

VAYSBLAT, I.N. (Kiyev)

Treatment of maxillary cysts. Probl. stom. 6:198-205 '62.

(MIRA 16:3)

(JAWS---TUMORS)

(CYSTS)

VAYSBLAT, S. N.

VAYSBLAT, S. N. "Problems of anesthesia in the surgery of the teeth and jaws", Vracheb. delo, 1948, No. 12, paragraphs 1059-62.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

VAYSBLAT, S.N., professor, zaslushennyi deyatel' nauki (Kiyev)

Extraoral mandibular anesthesia and its significance in stomatologic
practice. Stomatologiya no.6:29-31 '53. (MLRA 7:1)
(Anesthesia in dentistry)

VAYSBLAT, S.N., professor, zasluzhennyy deyatel' nauki; DATSENKO, M.F.,
redaktor; RAYZ, A.L., tekhnicheskiy redaktor.

[Conduction of anesthesia in dental and jaw surgery] Provodniko-
voe obezpolivanie v khirurgii zubov i cheliustei. 6-e perer. i
dop. izd. Kiev, Gos.med.izd-vo USSR, 1954. 288 p. (MIRA 8:5)
(Anesthesia in dentistry)

VAYSBLAT, S.M., professor, zasluzhennyi deyatel' nauki (Kiyev)

Orbital approach in anesthesia of the foramen ovale. Stomatologiya
no.1:38-40 Ja-F '55. (MLRA 8:5)

(ANESTHESIA, REGIONAL,
foramen ovale, orbital approach)
(DENTISTRY, OPERATIVE, analgesia and anesthesia,
foramen ovale anesth., orbital approach)

VAYSBLAT, S.H.

LUKOMSKIY, I.G., professor.

"Conduction anesthesia in surgery of the teeth and jaws. S. H.

Vaisblat. Reviewed by I.G.Lukomskii. Stomatologiya no.3:57

My-Je '55.

(MLRA 8:9)

(VAISBLAT, S.H.) (ANESTHESIA IN DENTISTRY)

VAYSBLAT, S.H., professor, zasluzhennyy deyatel' nauki USSR (Kiyev)

Suprazygomatic, so-called temporal pathways of conduction anesthesia
of the mandibular and maxillary nerves. Stomatologiya no.5:28-31
S-O '55. (MIRA 9:2)

(ANESTHESIA, REGIONAL,
mandibular & maxillary nerves, suprazy gomatic temporal
methods)

VAYSBLAT, S.N., zasluzhennyi deyatel' nauki, professor (Kiyev)

Orbital path of suborbital anesthesia. Stomatologiya 35 no.3:17-18
My-Je '56. (MLRA 9:9)

(LOCAL ANESTHESIA)

VAYSBLAT, S.N., zasluzhennyy deyatel' nauki, professor (Kiyev)

Features of using local anesthesia in pediatric stomatological
practice. Vrach.delo no.8:839-843 Ag '57. (MLBA 10:8)

(ANESTHESIA IN DENTISTRY)

(PEDIATRIC ANESTHESIA)

VAYSBLAT, S.N. (Kiyev)

Degree to which curettage of a periapical inflammatory focus is
necessary following extraction of a tooth in a periapical chronic
peridontitis. Probl. stom. 5:205-207 '60. (MIRA 15:2)
(TEETH_DISEASES) (DENTISTRY, OPERATIVE)
(TEETH_EXTRACTION)

VAYSBLAT, S.N., prof. (Kiyev)

Surgical treatment in paradentosis. Probl.stom. 4:305-310 '58.

(MIRA 13:6)

(GUMS—SURGERY)

VAYSBLAT, S.N. (Kiyev)

Chronic odontogenic osteomyelitis of the jaw. Probl.stom. 6:
209-213 '62. (MIRA 16:3)

(OSTEOMYELITIS) (JAWS—DISEASES) (TEETH—DISEASES)

VAYSBLAT, S.N. (Kiyev)

Progress in local anesthesia in stomatology. Probl.stom. 6:332-
337 '62. (MIRA 16:3)

(LOCAL ANESTHESIA) (STOMATOLOGY)

VAYSBLAT, S.H., prof. (Kiyev)

Neuralgia of the glossopharyngeal nerve and its removal by
means of stem alcoholization. Kaz. med. zhur. no. 4:68-69
Jl-Ag '60. (MIRA 13:8)

(GLOSSOPHARYNGEAL NERVE--DISEASE)
(ALCOHOL--THERAPEUTIC USE)

VAYSBLAT, S.N., prof., zasluzhennyy deyatel' nauki (Kiyev)

Exact and diffuse methods of conduction anesthesia in the maxil-
lofacial region. Vrach.delo no.12:1297-1299 D '59.

(MIRA 13:5)

(LOCAL ANESTHESIA)

VAYSBLAT, Solomon Naumovich, zasl. deyatel' nauki USSR, prof.;
GINZBURG, I.S., red.; BYKOV, N.M., tekhn. red.

[Local anesthesia for operations on the face, the jaws, and
the teeth] Mestnoe obezbolivanie pri operatsiyakh na litse,
cheliustiakh i zubakh. Kiev, Gosmedizdat USSR, 1962. 468 p.
(MIRA 16:3)

(LOCAL ANESTHESIA) (FACE--SURGERY)
(JAWS--SURGERY) (ANESTHESIA IN DENTISTRY)

VAYSBLEKH, M.

15065

USSR/Leather Plants 4414.0500
Textile Plants 4415.0600
Labor 5400.

Oct 1947

"Incorporation of Stakhanovite Methods in Enterprises
of USSR," M. Vaysblekh, $\frac{1}{2}$ p

"Legkaya Prom" Vol VII, No 10

Labor production plan fulfilled 100% during first half
of 1947. General description of changes in machinery
in following factories: Kiev shoe factory No 1, Dne-
propetrovsk shoe factory No 9, Kharkov shoe factory No
5, Odessa saddlery and equippage factory, Kiev heel
factory, Kremenchug leather plant No 13, Kiev knitwear
factory imeni R. Lyuksemburg, Kharkov stocking factory,
and L'vov knitwear factory.

LC

15065

VAYSBLIT, M.B., inzh.

Expand and improve the selection of wool fabrics. Tekst.prom.
19 no.10:16-19 0 '59. (MIRA 13:1)

1. Nachal'nik otdela sherstyanoy promyshlennosti Vsesoyuznogo
instituta assortimenta legkoy promyshlennosti i kul'tury odezhdy.
(Woolen and worsted manufacture)

VAYSBORD, E.M. (Móskva)

Approximate method for optimum control synthesis. Avtom. i telem. 24
no.12:1626-1632 D '63.
(MIRA 17:1)

VAYSEORD, E. M. Cand Phys-Math Sci -- (diss) "On the existence of periodic solutions in certain systems of differential equations of the third and fourth order, and on the behavior of solutions of ^{systems of 2} differential equations ^{in the neighborhood of a singular point.}" Mos, 1958. 8 pp

(Mos Order of Lenin and Order of Labor Red Banner State Univ in M. V.

150 copies
Lomonosov) (KL, 52-58, 97)

VAYSBERG, E.M.

Existence of a periodic solution for nonlinear equations of the third and fourth orders. Nauch.dokl.vys.shkoly; fiz.-mat.nauki no.3:10-13 '59. (MIRA 13:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Differential equations)

6

16(1)

AUTHOR:

Vaysbord, M.M.

SOV/140-5⁰-4-6/26

TITLE:

On the Existence of a Periodic Solution and on the Boundedness in the Large of the Solutions of a System of Differential Equations of Third Order

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 4, pp 38 - 49 (USSR)

ABSTRACT:

Let the system

$$(1) \dot{x} = f_{11}(x) + f_{12}(y) ; \dot{y} = f_{23}(z) ; \dot{z} = f_{31}(x) + f_{32}(y) + f_{33}(z)$$

be given, where all the f_{ik} are continuously differentiable.

Theorem : Let

$$a) f_{ik}(0) = 0$$

$$b) f'_{11}(x) < 0, f'_{31}(x) < 0, \lim_{|x| \rightarrow \infty} f'_{i1}(x) = -\infty, i = 1, 3$$

$$c) 0 < f'_{12}(y) < c, f'_{23}(z) > 0, |f_{23}(z)| \leq a|z|$$

$$0 < f'_{32}(y) < m, f'_{33}(z) < 0, q|z| < f_{33}(z),$$

Card 1/3

Boundedness in the
On the Existence of a Periodic Solution and on the Large of the Solutions of a System of Differential Equations of Third Order SOV/140-59-4-6/26

whereby :

from $\lim_{y \rightarrow +\infty} |f_{32}(y)| < +\infty$ it is assumed to follow
 $\lim_{y \rightarrow +\infty} f'_{32}(y) = 0$

or from $\lim_{y \rightarrow -\infty} |f_{32}(y)| < +\infty$ it is assumed to follow
 $\lim_{y \rightarrow -\infty} f'_{32}(y) = 0$

d) on $f_{31}(x) + f_{32}(y) = 0$ it is assumed to be

$$f'_{12}(y) - \frac{f'_{11}(x)}{f'_{31}(x)} f'_{32}(y) > \gamma > 0$$

e) $0 < A < \frac{f'_{11}(x)}{f'_{31}(x)}$

Card 2/3

On the Existence of a Periodic Solution and on the Boundedness in the Large of the Solutions of a System of Differential Equations of Third Order SOV/140-59-4-6/26

$$f) \frac{ca}{Aq^2} < 1$$

$$g) f'_{23}(0) \left(f'_{33}(0)f'_{32}(0) + f'_{31}(0)f'_{12}(0) \right) - f'_{11}(0)f'_{33}(0) \cdot \\ \cdot \left(f'_{11}(0) + f'_{33}(0) \right) < 0.$$

Then (1) possesses at least one periodic solution. All solutions are bounded in the large for $t \rightarrow +\infty$. Pliss, Skachkov and Tuzov are mentioned in the paper. There are 10 references, 7 of which are Soviet, 2 American, and 1 Italian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

SUBMITTED: May 30, 1958

Card 3/3

"APPROVED FOR RELEASE: 08/31/2001

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"APPROVED FOR RELEASE: 08/31/2001

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D. E. Y.

NO. REF. SOV: 002

APPROVED FOR RELEASE: 08/31/2001

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31910
8/039/62/056/001/002/003
8112/8138

AUTHOR: Vaysbord, E. M. (Moscow)

TITLE: Existence of a periodic solution to a non-linear third-order differential equation

PERIODICAL: Matematicheskii sbornik, v. 56(98), no. 1, 1952, 43-58

TEXT: The author demonstrates the existence of a periodic solution to the system: $dx_1/dt = x_2 - \varepsilon_1(x_1)x_1$, $dx_2/dt = x_3 - \varepsilon_2(x_1)x_1$, $dx_3/dt = -\varepsilon_3(x_1)x_1$. It is assumed that $\varepsilon_1(x) = G_1(x)/x$ for $x \neq 0$ and $\varepsilon_1(x) = G_1'(x)$ for $x = 0$, where the $G_i(x)$ are functions for which the Cauchy's problem of the equation $d^3x/dt^3 + d^2G_1(x)/dt^2 + dG_2(x)/dt + G_3(x) = 0$ is unambiguously solvable for arbitrary initial conditions. Additional assumptions: a) $\varepsilon_1(x) > 0$, b) existence of $\lim_{x \rightarrow 0} \varepsilon_1(x) = \varepsilon_1(0) > 0$, c) $\varepsilon_1(0)\varepsilon_2(0)\varepsilon_3(0) > 0$, $\varepsilon_1(\infty)\varepsilon_2(\infty)\varepsilon_3(\infty) < 0$.

Card 1/3

Existence of a periodic solution ...

31910
S/039/62/056/001/002/003
B112/B138

$$d) g_1(x_0) > \frac{(V g_1(x_0) + V g_1(x_0) + g_1^2(x_0)) (g_1^2(x_0) + g_1(x_0) + 1 + V(g_1(x_0) + 1)^2 + g_1(x_0))}{V g_1(x_0) (g_1^2(x_0) + g_1(x_0))} \Delta,$$

$$\Delta = \max(\Delta_1, \Delta_2, \Delta_3), \quad \Delta_i = \sup_{-\infty < x < +\infty} |g_i(x_0) - g_i(x)|.$$

e)

$$(g_1^2(x_0) g_1(0) + g_2(0))^2 > \\ > \max \left[(-g_2(x_0) g_1(0) + g_3(0))^2, \left(\frac{g_2(x_0)}{g_2(0)} g_3(0) - g_3(0) \right)^2 \right] + \\ + g_2(x_0) \frac{g_2^2(0)}{g_1^2(0)} \left(g_1(0) - \frac{g_2(0)}{g_2(0)} \right)^2,$$

f)

$$g_1^2(x_0) > g_2(x_0).$$

g)

$$g_1(x_0) > g_1(0).$$

An analogous theorem is proved for the case of a non-linear fourth-order equation. There are 2 figures and 3 references, 2 Soviet

Card 2

Existence of a periodic solution ...

31910

S/039/62/056/001/002/003
B112/B138

and 1 non-Soviet. The reference to the English-language publication reads as follows; L. L. Rauch, Oscillation of a third-order non-linear autonomous system. Contributions to the theory of non-linear oscillations, Annals of math. studies, No. 20 (1950), 39 - 89.

SUBMITTED: January 21, 1960

4

Card 3/3

VAYSBORD, E.M. (Moskva); ROZENSHTEYN, G.Sh. (Moskva)

"Life" of stochastic automata. Izv. AN SSSR. Tekh. kib. no.4:
52-59 J1-Ag '65. (MIRA 18:11)

ACC NR: AP6024361

SOURCE CODE: UR/0280/66/000/002/0045/0048

AUTHOR: Vaysbord, E. M. ^(Moscow); Rozenshteyn, G. Sh. ^(Moscow)

ORG: none

TITLE: On a method of constructing optimal environments for unstable automata

SOURCE: AN SSSR. Izvestiya, Tekhnicheskaya kibernetika, no. 2, 1966, 45-48

TOPIC TAGS: automation, electronic circuit environment, optimal control, dynamic programming, dynamic stability

ABSTRACT: The optimal environment in this case is construed as the environment which maximizes the lifetime of unstable stochastic automata. By analogy with the behavior of the higher animals, which is characterized by a regular alternation of periods of activity and periods of rest, the behavior (lifetime) of an unstable automaton may be optimized if for f time units it functions in spontaneous environments and for g time units, in an environment specially designed to prolong the automaton's life, after which the automaton again functions in a spontaneous environment for f cycles. In this connection, the authors propose a matrix method of computing the optimal environment, as based on the dynamic programming theory.

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ACC NR: AP6024361

Essentially, this means that for an automaton which follows a fixed matrix P of transition probabilities for f cycles and a "self-selected" transition matrix for g cycles, the optimal -- from the standpoint of maximizing the automaton's lifetime -- matrix Q can be found by determining the optimal mapping of $\varphi_0(A_i)$ of each state A_i ($i = 1, \dots, m$) onto one of the set of states at which the automaton may arrive in the course of g cycles. This mapping can be determined by means of the method of successive approximations based on the ideas of dynamic programming (Bellman, R. Dinamicheskoye programmirovaniye. Izd-vo inostr. lit. 1960 [Russian translation]). Orig. art. has: 10 formulas.

SUB CODE: 09, 12/ SUBM DATE: 13Jul65/ ORIG REF: 001/ OTH REF: 001

Cond 2/2

1. KOCHNEV, V. I.: VAYSPORD, M. A.
2. USSR (600)
4. Cranes, Derricks, Etc.
7. Reconstruction of the boom of a portal crane. Rech.transp., 12, no. 6, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VAYSBORD, N.A.; GRINBERG, A.A., kand. med. nauk

Pelvic arteriography; a review of literature. Akush. i gin.
40 no.2:84-89 Mr-Apr '64. (MIRA 17:11)

1. Gorodskaya klinicheskaya bol'nitsa No.29 imeni Baumana
(vedushchiy khirurg - kand. med. nauk L.M. Shnaper, glavnyy
vrach - kand. med. nauk N.G. Orlov), Moskva.

VAYSBROD, S.A.

YAKUBOV, V.F., inzh.; VAYSBROD, S.A., inzh.; KUDRYASHOV, S.A., inzh.

New grounding system for electric installations. Nov. tekhn. i pered.
op. v stroi. 20 no.3:27-28 M '58. (MIRA 11:3)
(Electric currents--grounding)

S/084/60/000/03/059/083
D047/D002

AUTHOR: Vaysburd, A., Workshop Superintendent (Bykovo)
TITLE: Spare Parts Can Serve Longer
PERIODICAL: Grazhdanskaya aviatsiya, 1960, Nr 3, p 23 (USSR)
ABSTRACT: The author states that some parts of the ASh-82T engine and Il-14 aircraft could serve longer than the prescribed period i.e. potentially 3000 hours and longer. According to present regulations, the parts have to be changed after a certain period although they may still be good. ✓

Card 1/1

VAISBURD, A. P.

(5)

Determination of lithium in air. I. I. Paul and A. P. Vaisburd (Sci. Research Unit, Inst., Novosibirsk). *Gigiena Tr. Sankt. 1953, No. 9, 49-50.* Li in the air can be detd. colorimetrically according to Nazarenko and Filatova (C.I. 44, 9591) in which the air is treated to give LiKFeO_4 , insol. in H_2O , from which the Fe can be detd. colorimetrically by the $\text{Fe}(\text{CNS})$ method. The reaction is sensitive to 0.002 mg. Fe, or 0.000215 mg. Li per 3 ml. At the level of 0.0004-0.0008 mg./l. in the air, the reproducibility of standard samples is within 6-10% relative.

G. M. Kosolapoff

VAYSBURD, A.Ya., inzh.

Increasing the life of iron mill rolls by the use of smaller
diameters. Stal' 21 no.12:1107 D '61. (MIRA 14:12)
(Rolls(Iron mills))

KORBUT, A.A., inzh.; KAMENETSKIY, L.Ye., kand. ekonom. nauk; VAYSBURD, R.M.,
inzh.

Using linear programming methods in planning the expansion of the Kansk-
Achinsk coal basin. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:48-51 '64.

(MIRA 17:12)

1. Leningradskiy vychislitel'nyy tsentr (for Korbut). 2. Gosudarstvennyy
institut po proyektirovaniyu shakht (for Kamenetskiy, Vaysburd).

8/089/62/013/005/012/012
B102/B104

AUTHORS: Vaysburd, D., Zakharov, Yu.
TITLE: Conference on the problem "Izmeneniya svoystv materialov pod deystviyem izlucheniya" (Radiation-induced changes in material properties")
PERIODICAL: Atomnaya energiya, v. 13, no. 5, 1962, 497-498
TEXT: The conference was held in November 1961 at the Tomskiy politekhnicheskiy institut (Tomsk Polytechnic Institute) (TPI). Studies at this institute, at the Sibirskiy fiziko-tekhnicheskiy institut (Siberian Physicotechnical Institute) (SFTI), and at the Tomskiy gosudarstvennyy universitet (Tomsk State University) (TGU) were reported and discussed. Scientists attended from Moscow, Irkutsk, Novosibirsk, Tashkent and Tbilisi. The main fields covered were: Determination of radiation resistance in dependence on the chemical composition of the material; physics of radiation defects and microprocesses; chemical radiation effects; apparatus for investigating radiation effects. The following scientists gave reports: A. A. Vorob'yev (TPI), radiation effects
Card 1/3

S/089/62/013/005/012/012
B102/B104

Conference on the problem ...

in ion crystals; A. V. Kuz'mina (TPI), calorimetric determination of energy stored in gamma-irradiated NaCl (1.47 cal/g); P. A. Savintsev, I. T. Berzina, A. A. Botaki, A. F. Naumov (TPI), irradiation-induced changes in physical properties of ion crystals; A. A. Vorob'yev, Ye. K. Zavadovskaya (TPI), radiation resistance of ion crystals as dependent on structure and composition; S. K. Salo (TPI), F-center concentration in X-ray-irradiated alkali halogenides; I. Ya. Melik-Gaykazyan, L. V. Grigoruk, M. I. Ignat'yeva (TPI), X-ray induced F-center formation of alkali halogenides as dependent on the bivalent-metal impurity content; B. V. Budylin and A. A. Vorob'yev (TPI), spontaneous F-center formation in neutron-irradiated and annealed ion crystals; A. K. Berzin, S. L. Kashchuk (TPI), β -radiation attenuation as reduced by small doses of neutron irradiation; M. A. Krivov, S. V. Molyanov, A. P. Vyatkin, V. I. Domnin, S. V. Mal'tsev, B. V. Mashkova (SFTI), effect of X- and γ -rays on semiconductor properties; V. M. Nesterov, Ye. S. Nesmelova, T. Kh. Mikhaylova, N. I. Ol'shanskaya (SFTI), radiation effects on crystalline polymers, rubbers, resin, and PVC plastics; V. V. Vorob'yev (TPI), radiation effects in ion crystals (review); V. V. Boldyrev, A. N. Oblivantsev, effect of previous X-ray irradiation on the thermal

Card 2/3

Conference on the problem ...

S/089/62/013/005/012/012
B102/B104

disintegration of permanganates; V. V. Boldyrev, Yu. A. Zakharov,
V. I. Yeroshkin, effect of impurities on thermo-, photo-, and radiation
resistance of ionic salts; L. S. Sokolov (TPI), output and measurement
of a cyclotron beam for material irradiation; B. A. Kononov and V. I.
Rudenko (TPI), new design of apparatus for measuring the betatron-
electron absorption coefficient in crystals; B. A. Kononov, S. A.
Kuznetsov, Yu. P. Tsurukin (TPI), measurements of electric conductivity
of irradiated samples in vacuo (10^{-5} mm Hg, -150 to $+150^{\circ}\text{C}$). ✓

Card 3/3

AUTHOR: Vaysburd, D. I. ; Melik-Gaykakazyan, I. Ya.
SOURCE CODE: UR/0058/66/000/008/E090/E090
TITLE: Kinetic equation for the accumulation of F-centers in alkali-halide monocrystals irradiated by protons
SOURCE: Ref. zh. Fizika, Abs. 8E686
REF SOURCE: Iz. Tomskogo politekh. in-ta, v. 138, 1985, 3-12
TOPIC TAGS: kinetic equation, crystal, f center, f center accumulation, M center, R center, monocrystal, alkali halide, proton irradiation
ABSTRACT: A study was made of the kinetics of the accumulation of F-, M-, and R-centers in alkali-halide monocrystals irradiated by protons with an energy of 5 Mev at room temperature. The depth of penetration of protons was determined from the thickness of the colored layer. For all the investigated crystals the concentration of M-centers was proportional to the square of the concentration of F-centers in the region of relatively small F-center concentration. An increase in the intensity of irradiation decreases the effectiveness of $F \rightarrow M$ conversion.

rd 1/2

for
irradiation

SUB CODE:

S/139/62/000/006/031/032
E039/E435

100-1000

AUTHORS: Melik-Gaykazyan, I.Ya., Vaysburd, D.I.

TITLE: The formation of F-centres in solid solutions of KCl-KBr

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.6,
1962, 174-176

TEXT: Samples of single crystals of KCl-KBr solid solution thickness 0.2 to 0.4 mm are irradiated with X-rays (Mo anode, 15 mA, 50 kV) filtered through Zr filter 0.2 mm thick at a dose rate of 170 r/min. The composition is determined from the position of the F-band maximum in the absorption spectrum. Curves showing the dependence of the F-centre density with exposure have a fast nonlinear rise followed by a slower linear rise. The former is assumed to be due to anion vacancies and the latter F-centres formed from radiation generated vacancies. In quenched samples the F-centre density is always higher than for freshly grown samples. The rate of formation of defects must depend directly on the X-ray absorption coefficient and inversely on the energy of the crystal lattice. Results of experiments on irradiation of samples up to a dose of 40800 r show that maximum F-centre density $\sim 4.3 \times 10^{16} \text{ cm}^{-3}$ is achieved for pure KCl and that the

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The formation of F-centres, ...

S/139/62/000/006/031/032
EO39/E435

density falls off steadily as the KBr concentration is increased to $\sim 0.7 \times 10^{16} \text{ cm}^{-3}$ for 4 mole % KCl. In addition, the slope of the linear part of the F-centre build up curve decreases as the KBr content increases, and in the case of 4 mole % KCl shows that saturation is attained. It is assumed that, under the conditions of these experiments, with the increase in KBr content the rate of destruction of F-centres by X-rays increases faster than the rate of their formation. There are 2 figures. ✓

ASSOCIATION: Tomskiy politekhnicheskii institut imeni S.M.Kirova
(Tomsk Polytechnic Institute imeni S.M.Kirov)

SUBMITTED: November 14, 1961

Card 2/2

ACCESSION NR: AP5019730

UR/0379/65/001/002/0190/0200

AUTHOR: Vaysbund, D. Y.; Malik-Geybargan, I. Ya.

40

BASED ON LOCALIZATION MULTIPLICITIES

SOURCE: Zh. fiz. khim., 1965, 39, 1, p. 1.

ABSTRACT: It was found that the

radiochemical reaction increases with the dose and total concentration of F -centers in the isolated and associated state. The following two irreversible processes

Single protein in the crystal can be determined from the kinetics of accumulation of
P- and M-centers. "We thank A. A. Jurekiewicz for reviewing the results of this work."

VAYSBURD, D.I.; MELIK-GAYKAZYAN, I.Ya.

Equation describing radiation accumulation of electron centers
in alkali halide crystals. Dokl. AN SSSR 165 no.5:1029-1032 D '65.
(MIRA 19:1)

1. Tomskiy politekhnicheskii institut im. S.M.Kirova. Submitted
March 29, 1965.

ACC NR: AP6002416

SOURCE CODE: UR/0020/65/165/005/1029/1032

AUTHOR: Vaysburd, D. I.; Melik-Gaykazyan, I.Ya.

ORG: Tomsk Polytechnical Institute (Tomskiy politekhnicheskii institut im.S.M. Korova

TITLE: Equation for accumulation of radiation electron centers in alkali halide crystals

SOURCE: AN SSSR. Doklady, v. 165, no. 5, 1965, 1029-1032

TOPIC TAGS: alkali halide, defect center, radiation damage, radiation effect, IRRADIATION, CRYSTAL STRUCTURE ANALYSIS

ABSTRACT: The authors have established in a previous paper (Teoreticheskaya i eksperimental'naya khimiya, 1, 190, 1965) that at room temperature the build-up of F-centers (n_F) in LiF monocrystals can be expressed as a curve with a maximum, and the efficiency of radiochemical coagulation of the F-centers into M-centers (n_M/n_F^2) increases. At a uniform distribution of the dose and in the absence of $M \rightarrow F$ type reverse reactions, such an irreversible process is a build-up of the total concentration of F-centers in single and associated states

$$n = n_F + 2n_N + 3n_R + \dots + in_{F_1} + \dots \quad (1)$$

Card 1/2

UDC: 539.293

ACC NR: AP6002416

The distribution of F-centers along multiple F_1 -centers follows Poisson's law. Based on the results of a mathematical argument, the authors conclude that with increase of the dose and the mean multiplicity of localization, the maximum distribution of the irradiated volume decrease and the half-width increases. The irradiated crystal becomes homogeneous and the experimental efficiency of the $F \rightarrow M$ reaction approaches the theoretical efficiency. Orig. art. has: 15 formulas and 2 figures.

SUB CODE: 20 / SUBM DATE: 25Mar65/ ORIG REF: 001/ OTH REF: 004

Card 2/2

L 35326-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JW/JG/GG

ACC NR: AP6026837

SOURCE CODE: UR/0020/66/166/002/0391/0394

AUTHOR: Vaysburd, D.I.; Melik-Gaykazyan, I.Ya.

ORG: Tomsk Polytechnic Institute im. S.M. Kirov

TITLE: Distribution of absorbed and accumulated emission energy with respect to localization multiplicities in a solid

SOURCE: AN SSSR. Doklady, v. 166, no. 2, 1966, 391-394

TOPIC TAGS: proton, lithium fluoride, irradiation, single crystal

ABSTRACT: The authors studied the accumulation of F- and M-centers in proton-irradiated single crystals of lithium fluoride. The study was based on the fact that the depth of penetration of protons into the crystal, and therefore the thickness of the color layer, depends on the proton energy. The accumulation of F-centers was studied to concentrations of approximately $5 \cdot 10^{19} \text{ cm}^{-3}$. The effectiveness of the F-M reaction (which is defined as $K_M W_M / (K_F W_F)$, where K_F and K_M are the coefficients of absorption at the maxima for the F- and M-bands respectively, and W_F and W_M are the half-widths of the corresponding bands) decreases with the radiation dose in the region where accumulation of R-centers is insignificant. The effectiveness of this reaction decreases with a reduction in proton energy and shows satisfactory correlation with the depth of proton penetration for a number of alkali halide crystals. It was assumed that overlapping of proton tracks in the crystal is responsible for these

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UDC: 539.293+539.294+548.4+539.12.04

L 35326-66

ACC NR: AP6026837

effects. Interaction between the solid and each individual quantum or particle is accompanied by absorption of a certain average energy $\epsilon = D/j$, where D is the radiation dose and j is the number of particles colliding in a unit volume of the target. The energy absorbed from the quantum is concentrated in a localization volume or track which is much less than the volume of the target for most types of radiation. When a solid is irradiated, there is the probability of spatial overlapping of quantum localization regions. This phenomenon is called multiple localization of radiation energy and the number of coincident localization volumes is called the multiplicity of localization at the point of overlap. The authors determined the distribution of the irradiated volume with respect to localization multiplicities of absorbed radiation energy. It is shown that the effectiveness of the F-M reaction is higher for crystals in which the volume of the track is greater for irradiation of crystals with various chemical compositions. The track volume is greater for crystals in which the stopping power is lower. This explains the correlation between reaction effectiveness and depth of proton penetration. It was found from the energy accumulated in F-centers, assuming a cylindrical track, that the diameter of a 2.7 Bev proton track is 35 Å. This article was presented by V.N. Kondrat'yev on 23 March 1965. The authors thank A.A. Vorob'yev for discussion of the results. Orig. art. has: 3 figures and 5 formulas./JPRS: 36,455/

SUB CODE: 20 / SUBM DATE: 08Jan65 / ORIG REF: 002 / OTH REF: 005

Card 2/2 Jdh

L 08359-67 EWT(1) IJP(c) GG

ACC NR: AR6028134

SOURCE CODE: UR/0058/66/000/005/D057/D057

59

AUTHOR: Vaysburd, D. I.

TITLE: Law of distribution of absorbed and stored radiation energy relative to the multiplicities of localization in a solid

SOURCE: Ref. zh. Fizika, Abs. 5D441

REF. SOURCE: Izv. Tomskogo politekhn. in-ta, v. 138, 1965, 13-19

TOPIC TAGS: color center, statistic distribution, solid state, light absorption, light energy, crystal defect, radiation damage

ABSTRACT: Starting from the assumption that the possibility of appearance of high local concentrations of color centers is inherent in the distribution of the absorbed and stored energy in the solid, the authors solved the problem of the probability distribution of the irradiated volume relative to the multiplicity of localization (ML) of the energy. By ML is meant the number of coinciding elementary localization volumes, that is, volumes in which the energy of one absorbed particle or quantum is distributed. The obtained laws make it possible to explain the uneven distribution of radiation defects and its variation with increasing radiation dose for crystals that have different chemical compositions and are exposed to different types of radiations. [Translation of abstract]

SUB CODE: 20
Card 1/1 nst

VAYSBURD, I.A.; ZADVORNYAK, P.V.

Clinical and electrocardiographic observations during the 1957
influenza outbreak in Stalinabad. Zdrav. Tadzh. 6 no.6:19-22
'59. (MIRA 13:4)

1. Iz kafedry infektsionnykh bolezney (zav. - dotsent D.M. Khashimov)
Stalinabadskogo medinstituta im. Abuali ibni Sino.
(STALINABAD--INFLUENZA) (ELECTROCARDIOGRAPHY)

VAYSBUROD, I.A.

Infection with the cutaneous form of anthrax following accidental
subcutaneous injection of TSenkovskii's second vaccine. Zdrav.
Tadzh. 7 no.1:40-43 Ja-F '60. (MIRA 13:5)

1. Iz Stalinabadskey gorodskoy infektsionnoy bol'nitsy.
(ANTHRAX)

SHAPIRO, S. E., KUTCHAK, S. N., VAYSBURD, I. A.

Fever

Hemorrhagic fever. Fel'd.i akush. No.9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

VAYSBURD, I.A.

OYVIN, V.I.; KORETSKAYA, L.S.; KHASHIMOV, D.M.; ~~VAYSBURD, I.A.~~

Distribution of antibodies in protein fractions of blood plasma of patients having acute dysentery [with summary in English]. Vop.med.khim. 3 no.3:190-194 My-Je '57. (MLRA 10:8)

1. Stalinabadskiy institut epidemiologii i gigiyeny, kafedra patofiziologii i kafedra infektsionnykh bolezney Stalinabadskogo meditsinskogo instituta imeni Avitsenny
(DYSENTERY, BACILLARY, immunol.
antibody distribution in blood protein fractions (Rus))

VAYSBURD, I. A.

"Analysis of Lethal Outcome in Typhoid Patients Treated With Synthomycin," by S. Ye Shapiro and I. A. Vaysburd, Stalinabad City Hospital of Infectious Diseases, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 28, No 1, Jan 57, pp 34-37

This work deals with investigation of 23 fatal cases of typhoid which had been treated with synthomycin between 1951 and 1955. Attempts were made to determine the causes of failure of antibiotic therapy. Eighteen of the cases were subjected to pathological-anatomical autopsy; the remaining cases were diagnosed before death by hemoculture or high-titer Widal reactions.

The article states that synthomycin was administered in the generally accepted dosages, i. e., a daily dose of 3 g for adults and less for children. In addition to pathogenetic and symptomatic therapy, penicillin and streptomycin were also given on the development of pneumonia. The work presents two case histories in which the administration of synthomycin was begun early and prolonged, but did not prevent death.

It is concluded on the basis of these observations that failure (fatal outcome) was determined by two factors: (1) a particularly severe course of the infection process with diffuse anatomical changes in the intestines and early affection of the central nervous and cardiovascular systems; and (2) complicating diseases, digestive collapse, helminthic diseases, and other factors which lower the immunological reactivity of the macroorganism. (U)

Sum. 1360

VAYNBURD, I.M., inzh.

Problem of inscribed and circumscribed rectangles encountered
in the design of welded structures. Scour. st. NIITIAZHMASHA
Uralsmashzavoda no. 3:35-42 '64. (MIRA 17:7)

VAYSBYRD, I.M., inzh.

Theory of the motion of a billet on a slide. Konstr.krup.mash. no.1:
139-154 '62. (MIRA 16:2)

(Furnaces, Heating)

VAYSBURD, M.A., promyshlennyy sanitarnyy vrach

Preventing the action of alternating electromagnetic high-frequency electric fields on the human organism. Gig. i san. 23 no.2:68
(MIRA 11:4)
P '58.

1. Iz Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(ELECTRICITY—SAFETY MEASURES)

VAYSBURD, M.S.; KOFMAN, V.D.; MURAKHVER, N.P.; STEPANOV, A.I.

About a book on the design and calculation of refrigerating machines
and apparatus. Khol. tekhn. 38 no. 1:61-62 Ja-F '61.

(MIRA 14:4)

(Refrigeration and refrigerating machinery)

Vaysburd, P. A., Ganago, O. A., and Tarnovskiy, I. Ya.

"Investigation of the Forging of Round Shapes in Open and Closed Dies",
Nauchnye Doklady Vysshey Shkoly, Metallurgiya, 1958, Nr 2 11 184-191.

8(3), 24(3)
AUTHOR:

Vaysburd, P. M., Engineer (Kiyev)

S/105/60/000/03/017/023
B007/B008

TITLE:

Improvement of the Traction Characteristics of Alternating-currents Electromagnets

PERIODICAL:

Elektrichestvo, 1960, Nr 3, pp 82-83 (USSR)

ABSTRACT:

It is necessary in a number of cases to vary the traction characteristics of electromagnets without changing their design. Three methods for improving the traction characteristics of alternating-current electromagnets are investigated here. Formula (1) for the total resistance of the winding of the electromagnet is written down. It follows that fundamentally two different methods are possible for reducing the total resistance of the electromagnet winding without changing its design: 1) by feeding the winding with direct-current and rectified current respectively, and 2) by connecting in series or parallel a capacitor, the capacitance of which can be determined from the condition $x_C = x_L$. x_C is the capacitance and x_L the inductance of the winding. The electromagnet traction is raised by the first method, by increasing the feeding voltage or by rectifying the feeding current. On the basis of the experiments,

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Improvement of the Traction Characteristics of
Alternating-currents Electromagnets

S/105/60/000/03/017/023
B007/B008

an increase of up to 220 v of the feeding voltage of the relay RPT-100 with a rated voltage of 127 v results in a rise of traction (with a gap of 1.5 mm) by 4.6 times its amount. In the second case the experiments on the same relay resulted in an increase by 3.5 times its amount. The ferro-resonance is utilized for raising the traction of the electromagnet in the second method in which the total resistance of the winding is reduced by connecting a capacitor. Experiments on a relay RPT-100 with a rated voltage of 220 v showed that, with an identical gap, traction increased by a number more than twice its amount. The capacitance of the capacitor was 1 μ F. There are 3 figures.

SUBMITTED: July 30, 1959

Card 2/2

VAYSBURD, P.M.

Simple photorelay. Avtom.i prib. no.4:89-90 O-D '62. (MIRA 16:1)

1. Opytno-konstruktorskoye byuro trgovykh avtomatov.
(Photoelectric cells)

VAYSBURD, P.M., inzh.; VASILPENKO, V.D., inzh.

Decrease in the short-term start current of electrical systems.

Energ. i elektrotekh. prom. no.2355-57 Apr-Je '65.

(MIRA 18:8)

VAYSBURD, P.M.; VIKENGAUZ, F.G.

Transistor photorelay circuit with a thermostabilizing loop.
Priboroostroenie no.2:26 F '63. (MIRA 16:5)
(Transistor circuits)

BEREZIN, A.M.; VAYSBURD, P.M.

Increasing the stability of an electronic timer. Prib. i tekhn. eksp. 8
no.2:105-106 Mr-Ap '63. (MLRA 16:4)

1. Kiyevskoye opytno-konstruktorskoye byuro.
(Electronic apparatus and appliances)

BEREZIN, A.M.; VAYSBURD, P.M.

Two circuits for connecting fluorescent lamps. Energ. i elektrotekh.
prom. no.3:14-16 J1-S '62. (MIRA 18:11)

BEREZIN, A.M., inzh.; VAYSBURD, P.M., inzh.

Condenser braking of small three-phase electric motors. Energ. 1
elektrotekh. prom. no.4:53-54 O-D '64.

(MIRA 18:3)

VAYSBUED, P.M., inzh. (Kiyev)

Improving the pull of a.c. electromagnets. Elektrichestvo no.3:82-
83 Mr '60. (MIRA 13:6)

(Electromagnets)

VAYSBURD, P.M.

Measuring torques. Izm.tekh. no.7:16 JI'62.
(Torque—Measurement)

(MIRA 15:6)

VAYSBURD, P.M., inzhener.; SHAPIRSHTEYN, Ya.A., inzhener.

Signaling the stoppage of power to large direct-current in-
stallations. Prom. energ. 11 no.10:6-7 0 '56. (MLRA 9:11)
(Signals and signaling) (Electric relays)